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or in so far as the activity which seeks satisfaction is hindered. When by sustained thought or action of any sort we have surmounted all obstacles and attained what we sought, in the enjoyment of the end and, indeed, in the growing fulfilment of any interest which absorbs the self, time is transcended as the act of seeking and devising passes into the realized experience of that which is sought. This is "teleological becoming" in contrast with mere aimless change. It is this sort of growing fulfilment or cumulative expansion of the self's life, that gives a time-transcending synoptic character to all successful serial activities—to the enjoyment of music and poetry; to the skilled player of games; to the successful prosecution of research; to all profound personal emotion, love, religious devotion, etc.

Now we should only have to conceive the ultimate self or cosmical psychical unity as one which is never permanently baffled, one which sees clearly every purpose and value in its relation to the whole system of finite experiences and actions. Then it becomes possible to understand, in some measure, how such a self in its knowledge may transcend every formal time-order without abolishing the reality of human development or of cosmic becoming, and without ceasing to express and find its own life in the temporally conditioned world through the unceasing synthesis of this world's manifold variety of interests, aims and meanings.

I recognize that the notion of an unbaffled cosmical purpose involves serious difficulties. I am not concerned to maintain it as the only concept of a world unity and space-limits forbid my dealing here with the other difficulties than that of time, by which such a concept is confronted.

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THE TIME OF PERCEPTION AS A MEASURE OF DIFFERENCES IN SENSATIONS

THE recent publication of Henmon's thesis, with the above title, in which are reported experiments on color, on linear magnitude, and on tonal pitch,[1] encourages me to offer a very brief account of similar experiments performed with lifted weights. The work was begun in the Harvard psychological laboratory, at Professor Münsterberg's suggestion, as long ago as 1893.[2] It was not, however, until 1903 that I was able to carry an experimental series to completion. The new experiments were made in the psychological laboratory of the Tokio Imperial University, with the permission of Professor Motora.

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[1] *Archives of Philosophy, Psychology and Scientific Methods*, No. 8, July, 1906.

[2] The method was originally proposed by Cattell; see *Philosophische Studien*, IV., 1888, p. 250; *ibid.*, Festschrift, I. Theil, p. 63.

The method employed was that of right and wrong cases as explained by Fechner, whose rules of procedure were strictly followed throughout. The times of reaction were taken by the spark-method, as described by Scripture. A detailed account of the experiments will be published later; I desire now simply to present the full set of results obtained with one observer, in order to show the feasibility of the method of time of perception as applied to the comparison of lifted weights.

In the following tables, P_1 stands for the standard weight, P_2 for the weight of comparison, both in gr.; D is the difference in weight between the two holders; and the times of reaction—the averages of the first forty right cases secured—are expressed in sigma. Constant errors of time and space have been eliminated.

TABLE I

RIGHT-HAND SERIES. $D = 0.04\ P_1$

P_1	P_2	σ	P_1	P_2	σ
300	288	699	300	312	755
500	480	566	500	520	616
1000	960	491	1000	1040	506
1500	1440	420	1500	1560	423
2000	1920	346	2000	2080	349
3000	2880	312	3000	3120	319

TABLE II

RIGHT-HAND SERIES. $D = 0.08\ P_1$

P_1	P_2	σ	P_1	P_2	σ
300	276	471	300	324	449
500	460	425	500	540	451
1000	920	355	1000	1080	419
1500	1380	278	1500	1620	301
2000	1840	238	2000	2160	279
3000	2760	206	3000	3240	233

TABLE III

LEFT-HAND SERIES. $D = 0.04\ P_1$

P_1	P_2	σ	P_1	P_2	σ
300	288	638	300	312	575
500	480	495	500	520	533
1000	960	396	1000	1040	410
1500	1440	383	1500	1560	326
2000	1920	343	2000	2080	295
3000	2880	304	3000	3120	309

TABLE IV

LEFT-HAND SERIES. $D = 0.08\ P_1$

P_1	P_2	σ	P_1	P_2	σ
300	276	529	300	324	536
500	460	484	500	540	535
1000	920	424	1000	1080	445
1500	1380	328	1500	1620	328
2000	1840	244	2000	2160	278
3000	2760	214	3000	3240	229

TABLE V

TWO-HAND SERIES. $D = 0.04\ P_1$

P_1	P_2	σ	P_1	P_2	σ
300	288	605	300	312	601
500	480	525	500	520	538
1000	960	464	1000	1040	451
1500	1440	383	1500	1560	411
2000	1920	310	2000	2080	334
3000	2880	282	3000	3120	253

TABLE VI

TWO-HAND SERIES. $D = 0.08\ P_1$

P_1	P_2	σ	P_1	P_2	σ
300	276	541	300	324	492
500	460	508	500	540	424
1000	920	440	1000	1080	418
1500	1380	373	1500	1620	303
2000	1840	262	2000	2160	253
3000	2760	223	3000	3240	236

It seems to follow from these results that (1), in general terms, the "time of perception" stands in functional relation both to stimulus and to stimulus-difference in experiments with lifted weights. We see, more in particular, that (2) the time required for the discrimination of two weights generally decreases with the increase of absolute difference between the weights, as well as (3) with the increased weight of the standard stimulus itself. Moreover, (4) the times obtained with positive increment to the standard stimulus are usually longer than those obtained with negative increment. As regards the bearing of these results upon Fechner's Law, it must be remembered that the present mode of calculation of the time-values (average of the first forty right cases) is radically different from that employed by Fechner for the metric values furnished by the method. Further inferences from the figures here published are reserved for a later occasion.

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